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THE CENTRAL COUNCIL FOR HEALTH EDUCATION

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EDITORIAL—W.H.O. SEMINAR

In celebrating our twenty-fifth anniversary we tried in our last editorial to this journal to weigh some of the influences which shaped health education during the past hundred years. We mentioned as part of this history the progressive policy being pursued by the World Health Organisation, and the community of interest which is growing up between ourselves and colleagues all over the world through our Associate Membership Scheme. We are therefore particularly happy to notice that during April 1953 World Health Organisation, through the Ministry of Health of the United Kingdom, is holding the first International Seminar on Health Education in London.

This is the first conference of its kind ever to be held throughout the world, and the programme seems most happily designed to produce active thinking and pooling of experience. The delegates will be senior health officers of governments from within W.H.O.'s European Region.

The health education problems of Europe, though varying from country to country, have sufficient similarity to warrant discussion on a collective basis, and ample time will be provided for delegates to meet in small groups to consider the major aspects of theory and practice.

In talking to colleagues from abroad we have always been impressed with the great variety of experiment which has already taken place, but which in many cases, due perhaps to the modesty of the authors, has neither been recorded nor evaluated. Owing to differences in the health culture of the countries of Europe and to the infrequent occasions on which, for geographical reasons, health education workers have been able to meet, ideas, methods and media have developed quite unequally. In one country we find that the major accent has been laid on poster campaigns and health education considered purely from the point of view of propaganda. In another, a purely "incidental" approach through health workers in private interviews and other "medical" occasions has been developed. In yet another, the health exhibition has reached a very high standard, and in others the main concentration is still on building up the fundamental organisations of local government and making the public aware of the value of public health. This has been largely due, we consider, to the fact that in the early stages of any movement personalities count disproportionately, and are likely to bias development along the lines of their own often inspired interest. Though these energetic personalities are invaluable in launching a movement against the hostility and indifference which any new venture is bound to encounter, there is always the danger that they may lead it into a blind alley.

We therefore hope that from this Conference a more complete and rounded view of health education will emerge which will help the delegates to advance the subject on all fronts, and draw on the manifold resources which are available among their doctors, teachers, nurses and community leaders of all kinds.

We wish every success to the Conference, and feel sure that it will mark out 1953 as one of the important years in the history of social medicine.

HEALTH AND FUNDAMENTAL EDUCATION IN BACKWARD COMMUNITIES

BY W. NORMAN TAYLOR, M.D.(Lond.), D.P.H.
University College of Fort Hare, South Africa

If asked the question, "What is health education?" most of us would probably answer that it consists of telling people about health; giving lectures or showing films, or publishing posters or pamphlets or magazines (like this Journal) about health matters. But merely *telling* people about health is only half the battle. The object of health education is to *improve* people's health, and unless their health is improved we cannot say we have educated them. We can use the Biblical parable of the sower who went forth to sow, as an illustration. Sowing the seed is like telling people about health—your lectures, your posters, and so on. But we must also do something about the soil. Has it been properly cultivated? Will there be sufficient moisture? And what sort of crop grows up as a result of our efforts? Has, in fact, anybody's health been improved? Professor Whitehead, the great educationalist, has defined education as the art of the ultilisation of knowledge. It is not just knowledge we want, but the utilisation of knowledge.

At this point I should like to emphasise that of the two words "health education", it is the word "education" that is the important one. A person who is a good educator will make a good "health educator", but an expert on health does not necessarily make a good "health educator" unless he takes some trouble to acquire at least the rudiments of the techniques of education.

The Desire for Improvement

As far as health education is concerned one important principle has to be remembered, a principle that applies to any form of education, if by education we mean that we want to change people's habits and ways of life. It is this. We are not likely to succeed unless we first of all produce the *desire* for this change, the desire for improvement and progress. The problem of creating this desire is a basic one and has to be tackled before all

others. Educationalists call it " motivation ". There is the saying that you can take a horse to the water but you can't make it drink. Our problem, as Hayes suggests in his little book *The Small Community Looks Ahead,* is not so much the problem of supplying the water as the problem of making the horse thirsty.

Educationalists, particularly those engaged in adult education, have borrowed a page from the social psychologists in order to foster this desire for change, this thirst. Here is not the place to go into details about this technique, a process that has come to be known as " group dynamics ", but suffice it to say that unless the dominant social group, in the psychological sense, desires the change, then any one individual in that group is not likely to alter his habits permanently. This principle is particularly important when dealing with people of a primitive cultural or educational level. Such people are usually extremely conservative by nature, and individuals among them can rarely be persuaded to do anything that is not fully approved by the rest.

Health Education is Part of a Larger Scheme

The second important point about health education is another one that applies particularly to backward communities. It is a point that may seem obvious but it is one that is often neglected. If health education is to achieve any sort of permanent effect on a people it must itself be part of a much larger change, a change bringing about an improvement in the educational and economic level of the community, an improvement in their whole standard of living. The failure to realise the importance of this is the reason why so many well-intentioned schemes have borne so little fruit. We can go so far as to say that a large proportion of the so-called health propaganda will be wasted as long as the people remain poor, ignorant and apathetic. And, *vice-versa,* very little health education will go a long way with people whose standards of living have been raised and whose eyes have been opened by general education.

The importance of this fact is one of the corner stones of UNESCO policy. They call it " fundamental education ". Its aim is to educate those people in those fundamental requirements which are necessary to achieve the minimum standards of what we are pleased to call our state of civilisation to-day. According to James Yen the basic aim of all education should be to achieve the following: It should help people to live fuller and happier lives ; it should enable them to adjust themselves to the changes that are continually going on in our modern environment ; it should encourage them to develop their own culture ; it should enable them to achieve economic progress and social progress ; it should enable them to take their place as part of the modern world ; and finally it should enable all peoples to live together in

peace. This definition of education has become the yardstick by which UNESCO measures any fundamental education programme.

Fundamental Education

How does the fundamental educator hope to achieve all this? What are the " subjects " he must include in his curriculum? In a little monograph on the subject, UNESCO lists the content of fundamental education as follows:

" The skills of communication and calculation ". These are the ordinary elementary school subjects, reading, writing, and arithmetic. Learning to think might also be included here.

" Vocational skills ". By these are meant agriculture, useful crafts, technical skills, etc., necessary for economic progress.

" Domestic skills ". These include such important subjects as child welfare and nutrition, in addition to ordinary housewifery.

" Skills of self-expression ", the arts and crafts.

" Education for health ". This includes a knowledge of the basic rules of personal and community hygiene.

" Practical Science ". This is to give sufficient understanding of the laws of nature to be able to overcome superstition and encourage action based on reason.

" Knowledge and understanding of human social and economic organisation ". This is particularly important if the aim is to help the people towards any form of self government.

" Development of judgment and initiative ".

" Spiritual and moral development ".

It will be seen, then, that the fundamental educator sets himself a wide and formidable task.

The Place of Health Education

Where does health education come into this? As already mentioned health education must be but *part* of the larger process of education. It follows that ideally the health educator is merely one of a team. His colleagues are the other experts, the agriculturalists, the economists, the technicians, and others. This is not to belittle the importance of health. On the contrary until their health is improved the people may be in the grip of a vicious circle. Disease saps their vitality and initiative, so that apathy and ignorance and malnutrition result, which in turn lead back to disease. In some situations disease may be the sole cause of a people's backwardness. This may be the case where malaria or sleeping sickness are endemic. If we can eliminate such diseases—and there is some hope that modern methods may prove very effective—the way is at once opened for uninterrupted progress.

When a fundamental education team sets out to improve an area there are some fairly definite methods of approach. Firstly the area chosen should be relatively small, allowing of a con-

certed effort with the resources available. It should be in a well defined geographical area with a homogeneous and static population. If such conditions can be found educational work will be far easier. And it is important to be successful with the first project because if demonstrable improvement can be achieved, then neighbouring areas will be all the easier to win over. To make sure of this deliberate demonstration projects can be planned. Projects dealing with agriculture or health are sometimes spectacularly convincing.

A preliminary survey of the whole area should be undertaken at the outset, to find out such matters as population distribution, educational facilities, economic development and so on. If possible it is desirable that the people themselves should help with this survey, and in this way become aware of some of the shortcomings of their community.

The most important problem should be attacked first. It may be the need for agricultural improvement, it may be the need to get rid of some disease that is crippling them, or it may be the need to raise their general educational standards. If possible something which will bring in an obvious financial benefit makes a good point at which to start.

Having made a survey and made an estimate of the needs of the area, the first thing to do is to make the community aware of their shortcomings and aware that it is in their power to bring about an improvement in their standards of living by their own efforts. People are often quite unaware, for example, that they are malnourished and that this is hampering their progress. People are even less likely to recognise that their own ignorance and prejudices are holding them back. Even when people realise that they are handicapped they will not readily admit that the remedy might be in their own hands. More often it is easier to blame " the Government," or the " white people ", or simply the weather.

We cannot here go into the actual educational techniques of bringing about this awareness of their own problems and the resultant desire for improvement. Mention has already been made of the need to appreciate the importance of social psychology in this connection. An important point is to concentrate on the natural leaders of the community. If they can be recognised—and they are not always the official leaders—and won over, then, in a primitive community, the rest will follow all the more readily.

The People Must do Their Own Planning

Having created this awareness and the feeling of need for improvement, the battle is half won already. The next step is to plan what action is to be taken to achieve the desired ends. Here the educator must resist the temptation to foist on to the people

his own ideas. It is most important, if the improvement is to have any solid foundation, for all plans to come from the people themselves. The educator merely acts as consultant, called in by the people to advise them on technical points. He must, need less to say, "know all the answers". He must know the potentialities of the area and of the people, and must be careful to say nothing that sounds too far fetched to them. It cannot be too strongly emphasised that pre-cut-and-dried schemes brought along by bureaucrats and applied, holus-bolus, *to* a community can rarely achieve permanent success. The plans may be perfectly sound in themselves, but that is not important. The people are not likely to consider the merits of a plan if it is foisted on to them by outsiders. No plan, however good, can be permanently successful unless it stems from the people and receives their active support and participation.

The important thing to bear in mind is that we must try to help people to help themselves. This of course is a trite saying, and often an excuse for leaving people to stew in their own juice, after which the "authority" has a marvellous excuse to step in and take over. But in the sense in which it is meant here the emphasis is on the first "help", not the second. The educator and his team are there to help people, to help them to an understanding of their own problems, to help them to see the ways in which these problems can best be solved to their own advantage.

Having decided on a plan the people should as far as possible be given real control, and real responsibility for its success or failure. People will, however, only feel they have real responsibility if they have made some contribution towards the cost of the project. The people must be made to feel that it is their *own* scheme, not just a present from a benevolent Government. Usually a community can only raise a small portion of the money required, and if this is the case, the Government, or some other agency, should subsidise them on a basis proportionate to the sums raised themselves. Very often the contributions can be in kind or in labour rather than in actual cash.

Finally the educator must evaluate the success or failure of his project. Is progress actually being made? Are the seeds that he has sown now bearing fruit? And what is the quantity and quality of the fruit?

Here then we see Fundamental Education at work, with the health educator one of a band of workers all with the same end in view, the increase on this earth of the sum total of human happiness. What could be nobler than that?

HEALTH EDUCATION IN A RURAL COMMUNITY

BY G. W. H. TOWNSEND, M.B., D.P.H.
County Medical Officer, Buckinghamshire

HEALTH education in rural areas presents special problems, some of which are fairly obvious; one thinks of the difficulty and expense of getting lecturers to small isolated groups and the natural suspicion of country folk to anything which to them does not appear to be a natural growth in their community. On the other hand certain of their idiosyncrasies, such as the rivalry between villages and enjoyment of small social activities, can be turned to good purpose. The popularity of young farmers' and youth clubs, the status of some village schools as key points in the local social fabric, the popularity of whist drives and so on—these seem to be signposts along the road for the health educator.

The Teachers

It is said, and there appears to be a measure of truth in the saying, that country folk do not like strangers, so it seems logical to use, if it is at all possible, people whom they know and trust to lead in whatever system of health education is adopted. It is difficult to think of anyone more fitted than the district nurse/midwife or the health visitor, and this brings us to a matter of primary importance; if health education in rural areas is not based on the work of the health visitor it is likely to be at best only partially successful. In turn, if the local health visitor is to be kept interested in formal health education, as distinct from the continuous informal health education she should be doing in the normal course of her duties, she must be advised by persons who share her outlook, education and professional techniques. In a word the central as well as the peripheral health teaching staff must be health visitors, but so far as the central staff is concerned, they must have training and aptitude for this par ticular work as well.

It seems logical that if the local health visitor is continuously engaged in informal health teaching she should also undertake formal health education as a natural extension of her work.

Another point in favour of using existing staff in this way is

that their educational work tends to be topical. With their local knowledge and information from county headquarters they know what is happening; thus, for example, in epidemic times information can be disseminated through an already established channel and is probably very effective because it is accepted as a matter of course and not subject to the criticism that it is alarmist in nature.

Channels of Approach

So much for teachers, but how are we to reach those that have to be taught? As already stated, this can best be done by making use of activities that appeal to country folk. Work in the schools is of great importance but is not included here since the approach in country schools differs little from that in urban schools and is evolving parallel to other school activities. A good deal can be done by offering lectures to groups already in being—youth clubs—young farmers' clubs—women's institutes and similar bodies, but the range of subjects that can be treated in this way is limited and, what is more important, this sort of approach does not fulfil important educational criteria in that it is sporadic and secondary to the primary purpose of the body to which it is directed.

Child welfare centres offer another and better platform but they suffer from grave disadvantages, not the least being that owing to the presence of infants and small children they are noisy and the audience cannot concentrate, and owing to their nature the time for discussion of any subject is short.

Some of these disadvantages are perhaps more assumed than real and it may well be that some re-orientation is overdue. Some personal interviews can be replaced by "group discussion" on similar lines, and in these days of shortage of health visitors reasonable short cuts in their work are admissible. It is, perhaps, in this context that there is special need for health education at the present time. The better a community is educated in health matters the fewer individual problems it will throw up, with consequent savings in the time of field workers.

It is perhaps appropriate at this point to underline the importance of fostering interest in the topic chosen and allowing ample time for expression of individual views and discussing on as wide a basis as possible the implications of any health topic. Modern educational systems seem to agree almost unanimously that group discussion and participation in teaching give better results than mere formal presentation of facts and views; these must be given but in such a way as to stimulate thought and discussion. If ample time and stimulus are not available so that the individual himself may play a part, the whole effort is less effective.

Mothers' Clubs

It was with these considerations in mind that the Buckinghamshire Mothers' Clubs were started some four years ago, and a good deal has been learned from this experiment. Briefly these clubs are discussion groups, sponsored by the Health Committee, which meet in the evenings, usually at fortnightly intervals. In some cases they get small grants towards their expenses from the Health Committee, but fundamentally they are autonomous. Their *raison d'être* is study of the problem of personal health and hygiene, but most of them run social activities as well. These are encouraged, on the principle that good health is inseparable from all other activities, but at each meeting some subject bearing directly on health must be included in the programme. The local health visitor acts as adviser and friend to the club and is their channel of communication with county headquarters on whom they rely to a considerable extent for speakers and lectures. It is, however, noticeable that as time goes on they become more self-contained.

The internal organisation of the clubs is not elaborate; they have a president, secretary and a small executive committee to look after their affairs and keep an informal record of their proceedings.

There are twelve of these clubs now in being with a membership of about 500 and membership varies from about 15 to 130. Talks and discussion groups are held also at welfare centre sessions and at evening meetings, and it is hoped that the interest aroused in this way will lead to the formation of more clubs.

The subjects discussed cover a wide range: for instance the programme of one club last winter had for successive sessions "Difficulties of the Toddler", "Working of Local Government", "The Story of the Vitamins", and "The Delinquent Child", while others discussed "The Care of the Elderly", "Home Safety", "Preparation for School", "Occupational Therapy", and "Adolescence".

It would take too much space to enumerate all the subjects touched on, but it must be emphasised that routine matters such as infectious disease, care of the teeth and so on are not neglected.

Our appreciation of the local press as an educational medium has already been mentioned. Most local papers publish in some detail the activities of the clubs, and while it is difficult to say what the value of this publicity is, it cannot be without effect.

After a Mothers' Club meeting at which a speaker mentioned that the fathers were expected to do the baby-minding on these occasions, the editorial of the local paper took up the challenge and with great vehemence expressed the view that this would break up family life. Discussion on this point continues indefinitely.

The Mothers' Clubs and the child welfare centres have taken part in the various competitions which have been arranged as part of the health education programme and a spirit of friendly rivalry has been fostered between the various groups. This activity has been fully described in a previous issue of this journal (April, 1951) and calls for no further comment here except to point out that by this competitive approach one is using the natural rivalry of village communities to good effect.

An annual health exhibition is held in one or other of the large towns in the county as the culmination of the year's work and the interest in this seems to show that health education as practised in Buckinghamshire is very stimulating.

Each year, in increasing numbers, child welfare centres and mothers' clubs hire coaches at the expense of their members to bring their members for the day to the exhibition, often a double journey of over 100 miles.

Staff Participation

All senior members of the health staff are encouraged to visit groups when they can and to lecture or take part in the discussions not only because their services as lecturers are needed, but also because this practice puts the administrative staff in the picture and the frendly criticism and suggestion received by them in this way is invaluable in keeping constantly before them that administration is not an end in itself. It is quite possible for an elaborate central administration to produce a comparatively poor public health service if it is not fully aware of the needs of the community it serves.

So far perhaps only the bright side of the picture has been painted, but there are real difficulties and by far the most important is the use of health visitors' time. In common with most other places, Buckinghamshire is short of health visitors and the demands on the staff are extremely heavy. It is of fundamental importance that whatever else is curtailed their contact with individual families by house to house visiting must be maintained —we believe that from both the educational and preventive aspects of public health nothing can replace this, and that if any dilution of labour in the health visitor's work is necessary it must take place in clinics, schools and elsewhere. The difficulty has been overcome up to the present largely by the fact that health visitors and nursing staff have cheerfully and willingly given up a good deal of what would otherwise be their leisure time to guiding and helping discussion groups. Most of this work is done in the evening and is a heavy burden on both the medical and nursing staff, which cannot be continued indefinitely. With a full staff it would be practicable to allow some other time off duty as a recompense for this work, and the difficulty

inherent in the present situation would not arise. In the meantime one can only offer one's grateful appreciation and thanks to those who give this extra service to the community. It is interesting that this is appreciated by the clubs and groups and enhances the reputation of health workers generally; the general public are coming more and more to realise that the devotion to duty which they well recognise so far as those engaged in curative medicine are concerned is equalled in the public health field.

Difficulties due to individual health visitors being unsuited to this sort of work are not as frequent as might be imagined, although individual difficulties do arise. There is, however, no doubt that if the senior members of the health education team were not trained health visitors things would not be so easy. It is not difficult for a senior health visitor educationist to shepherd her weaker sister along the right lines in a way that would be impossible with other arrangements. It is an accepted practice that the central staff assist in the work locally and it can be so arranged that this help is given where it is most needed.

To sum up, it is argued that although health education in rural areas presents special difficulties, some of these can in certain circumstances be advantageous. It is held that health education to be effective must be a continuous and live effort on the part both of the health educator and of those to be educated; and above all, that health education should grow naturally from the general activities of the health department.

BIOGRAPHICAL NOTES

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TEACHING PRISONERS ABOUT HEALTH

By the Staff of the Health Education Section
of the Health Department, City of Birmingham

WHEN the work of the Birmingham Council for Social Health was taken over by the Public Health Department on January 1, 1944, a nucleus of the present health education programme was formed. Between 1944 and 1947, the scope of work in youth and adult groups was widening, and in 1947 the opportunity arose for entering an entirely new field, namely, H.M. Prison, Winson Green, to give mothercraft talks to women prisoners. The first six lectures having proved their value, further courses were tried out, as it was found that long-term prisoners wished to continue their attendance.

In 1950, at the request of the chaplain, shorter syllabuses, lasting three months, were introduced and repeated throughout the year, since he was anxious to bring into the course all mothers who had been convicted of child neglect. However, with the introduction in 1952 of a special training course on child care for these prisoners, a change in programme was indicated. Because of the wide age range of women attending the course, a comprehensive syllabus on principles of general health and prevention of disease has now been introduced.

The greater proportion of prisoners in H.M. Prison, Winson Green, are men: therefore, when health education was firmly established for the women, attention was naturally turned towards a programme to include men. The first syllabus covered personal and community hygiene and in the following year this was modified to include parentcraft.

The talks and discussions are of an hour to an hour and a half's duration, and attendance of prisoners is voluntary. Owing to the great difference in numbers in the groups (women's groups being between 16 and 20, and men's groups ranging from 50 to 60) the method of approach differs.

The women meet in a small room which produces a more intimate atmosphere in which informal discussion group methods are most successful. Whenever possible a practical demonstration is carried out ; for instance, the bathing of a baby is always well received.

(Left)
Serving six months for neglecting her family, a woman is taught how to bath the baby.

(Right)
Hints on toys easy to make at home.

The male prisoners meet in a hall assigned for this purpose and must perforce receive a more formal type of lecture, which lasts for about 40 minutes. Afterwards the meeting is thrown open for questions, which follow fast and furiously, and in most cases are closely related to the lecture given. These often lead to stimulating and sometimes provocative discussions, bearing in mind that the group represents a wide range of intelligence.

When parentcraft was introduced into the men's syllabus, the woman's point of view was brought in by women lecturers. This helped to widen the field of discussion, just as it had been found valuable for the male lecturer to speak of the man's place in the home to the women prisoners.

The response of both men and women prisoners is such that it has been found possible to treat them as formal health education groups. The lecturers have no knowledge of the individual's records and prison history, and are not encouraged to discuss the prisoner's own particular problem. Therefore the maintenance of good attendance suggests that the lectures are appreciated.

As a sound film projector is available and a prison officer had training in operating it, relevant films are borrowed from the Central Film Library. As in other groups, flannelgraphs and film strips are also useful aids to the teaching, and help to illustrate the various subjects.

Printed below are programmes of health education lectures which will be given in H.M. Prison, Winson Green, during the period September, 1952, to July, 1953:

Syllabus for Winson Green Women Prisoners

First Course

Public Health Services
How to Maintain Health
Food and Health
Prevention of Food Infection
Healthy Motherhood
Bathing Demonstration
Feeding of Children 0–5 years
Family Life
Film Session
The School Child
Adolescence
Middle Life
Prevention of Disease
Film Session

Second Course

History of Maternity and Child Welfare Services
Yourself and Your Body
Care of the Feet

Prevention of Infection Through Skin
Man's Place in the Home
Preparation for Baby
Infant Care and Management
Management of the Toddler
Film Session
The School Medical Services
The Last Year at School
Life After Forty
Prevention of Food Infection

Third Course

Modern Health Services
Personal Responsibility and Contribution to Health
Posture and Health
Prevention of Infection via Respiratory System
Importance of the Father to the Child
How a Baby is Born
Bathing Demonstration
Mental and Physical Development of Children
Film Session
Defects of School Children
The Adolescent at Work and Play
The Changing Years
Infectious Diseases

Syllabus for Winson Green Men Prisoners

First Course

Present-day Problems in Public Health
What Statistics Tell Us
Present Epidemic Diseases
Hygienic Food Handling
The Work of the Sanitary Inspector
Refuse and Sewage Disposal
Infestation (Personal)
Caring for Children
Family Budget
Food and Health
Personal Responsibility and Contribution to Health
The Work of the Welfare Department
Administration of the Health Department
Care of the Feet

Second Course

Fifty Years of Public Health
Epidemic Diseases of History
Prevention of Disease
The Work of the Public Health Doctor
Family Life

Ice Cream and Milk
Birmingham Canals
Infestation (Premises)
Food and Health
The Work of the Children's Department
Importance of the Father to the Child
Mental Health

Third Course

Birmingham—Its Development and Present Condition
The Work of the Public Health Department
Housing, Old and New
Personal Hygiene
Microbes in Food
The Work of the Health Visitor
The Responsibilities of Parenthood
Work, Health and Leisure
Local Government Services
Rodent Control
On Growing Old
Mental Welfare
Films

With the introduction of a new venture by the Prison Authorities in social rehabilitation of women convicted for child neglect, health education in prison takes another step forward.

A hostel formerly occupied by women officers was adapted for this purpose. The Prison Commissioners and responsible officers met representatives of the Education and Health Departments of the City of Birmingham to plan a new course. The housecraft training, including cookery, laundrywork, housewifery and needlework, are taught by domestic science teachers. Much of this is incorporated into the day-to-day routine of the hostel.

Various health visitors teach the principles of child care, and a male health education lecturer deals with the part the man should play in family life. A psychiatric social worker, who is also a fully trained health visitor, discusses the problems encountered in the management of children and the assistant children's officer speaks on the care of children after removal from their parents, and the importance of building up family life in preparation for their return home.

Home nursing instruction is given by a superintendent district nurse. The class consists of 12 women sent from prisons all over England to attend the special course of eight weeks' duration, the selection being determined by the type of neglect and length of sentence.

The size of the group allows for a technique similar to that used for the other women prisoners. At the request of the

prison authorities no attempt is made by the lecturer to find out the factors responsible for individual conviction, since all case work is dealt with by the chaplain.

Child Care Syllabus

Ante-Natal Care
Ante-Natal Preparation
Bathing of a Baby
Demonstration
Work of the Health Visitor
Breast Feeding and Weaning
Artificial Feeding
Care of Utensils
Physical Needs and Development of the Child (0–1 years)
Physical Needs and Development of the Child (1–5 years)
Man's Place in the Home
Importance of the Father to the Child
Prevention of Accidents
Simple First Aid
The Home Help Service
Prevention of Spread of Infection
Public Health Services
Mental and Emotional Development of the Child

Health education in prison is worthwhile. The prisoners, if only by virtue of their circumstances, form a most receptive group and the prison authorities are satisfied that educational programmes are one of the best means of turning to good account some part of their enforced solitude.

CORRECTION

Messrs. D. & W. Gibbs have asked us to state that their film *Let's Keep Our Teeth* is not available free, as stated in our last issue, but may be hired at a cost of 6s. from Sound Services, Kingston Road, S.W.19, or The Educational Foundation for Visual Aids, 33, Queen Anne Street, W.1.

THE EDUCATIONAL FACTOR IN TREATMENT

BY A. R. HARRISON, M.D., M.R.C.P.
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In this paper it is proposed to consider only one aspect of health education in hospitals: the role of education in the treatment of sick people. The subject merits discussion, especially in view of the steadily increasing public interest in health matters and the necessity for economic considerations in medicine. A recent leading article in the *British Medical Journal* stated, "If the cost of the national medical service is not to increase by leaps and bounds the public must be taught two things: how to keep healthy and, when they do fall ill, how to use in a sensible way the services provided". A third proposition can be added: those who have fallen sick and received treatment in hospital must, when necessary, be taught how to maintain the improvement which treatment has given them. After all, many hospital patients are suffering from illnesses, such as diabetes or congestive heart failure, which necessitate continued treatment after discharge from hospital. If instruction of these patients is unskilful, badly formulated, or even (and this may sometimes occur) entirely omitted, then in spite of the benefit of modern and expensive diagnostic procedures and treatment they may later become therapeutic failures. That this does occur is apparent, for there can be few doctors who have not met with examples of the patient whose disease has relapsed because of ignorance.

It is debatable whether hospital is the right place for the type of health education under discussion, for although I believe that as a general rule hospitals could and should devote more time to the education of their patients, it would be very wrong to exclude the family doctor who has a role of unique importance in this field.

On the one hand the following factors favour the hospital as educator:

1. Its authority and standing are usually high in the patient's estimation.

2. Patients ill enough to attend hospital might be expected to be more receptive of instructions designed to make them well.

3. Generally speaking, more time can be set aside for education in hospital than outside it.

4. In certain cases special knowledge or special facilities which can only be provided by hospitals are necessary for the instruction of patients.

5. In some hospitals there are wards used for the treatment of one particular disease which affords opportunity for group education, e.g., diabetes, tuberculosis or peptic ulcer.

However, it must not be forgotten that most out-patients are seen because of their family doctor's request for a specialist's opinion or for various investigations. It is the task of the hospital merely to aid the family doctor: the management of the patient's illness remains in his hands in all respects, including, obviously, the giving of any necessary instructions.

This system has certain definite merits where education of the patient is concerned. It avoids the pitfalls of the patient receiving advice from two different sources; for even though the instructions given at hospital and by the family doctor may be substantially the same there is likely to be some difference of detail which can bewilder and discourage the less intelligent patient. From time to time the advice will be more fundamentally conflicting, for medicine is not as yet a perfect and exact science in which there is one and only one correct solution to each and every problem. Many patients do not have the necessary background of knowledge to appreciate this and can become seriously disturbed at what they regard as a major disagreement between their doctors.

There is also the great importance of a knowledge of the patient's environment, for if instruction and indeed the whole planning of aftercare is to be successful then it must fit the particular background of the individual patient.

The family doctor will have a much deeper knowledge than the hospital of these very important factors.

In my own hospital we often found it difficult through ignorance to plan an aftercare programme for many of our patients, and we therefore instituted a system of bi-weekly meetings, each lasting about an hour, when the whole medical firm from consultant to house physician and the ward sister met the almoner in order to discuss these problems and at the same time learn more of the background of our patients.

In a general hospital the tasks we have in educating our patients in aftercare will obviously vary enormously, not only in subject matter but also in complexity and size.

At one end of the scale our job may only involve three or four minutes' explanation of one or two straightforward and simple facts. To tell an epileptic that he will have to continue taking anti-convulsant drugs regularly and without fail until further notice, even though fits may have ceased, or to drive home the necessity for the life-long continuation of liver or vitamin B_{12}

injections to a patient with pernicious anaemia is neither difficult nor time-consuming.

At the other—the "syllabus" may be long and complicated. Consider for example the education of the diabetic patient who, apart from having to learn how to give his own insulin injections and how to use his diet, should also know something about the nature of his disorder and the pathology of the disease, the complications, and the recognition of the early symptoms of some of these complications.

Recognition of the importance of training in diabetes has resulted in the widespread development of diabetic clinics, where such training is given, and in the growth of organisations such as the Diabetic Association. Similarly, physical re-education and training is, in the main, efficiently organised. In other conditions there is still need for much wider development of training—medical examples which occur to me are heart disease, peptic ulcer and nearly all conditions requiring dietetic treatment.

Quite apart from this there is surely a need for more training of relatives in simple nursing techniques which can be used at home.

Methods of Teaching

Verbal instruction of individual patients is, and is bound to remain, the mainstay of the methods used in a general hospital. Indeed, it is the only possible one to use if every patient seen during a ward round or attending an out-patient clinic is suffering from a different disease. This type of teaching offers other advantages which are embraced by one word—flexibility. The choice of words, the whole intellectual level of the lesson can be varied according to the intelligence of the patient. Modifications can be made to suit his background and questions can be put immediately, as they arise, not only by the patient but by the instructor as well. This last point is of vital importance, for in my experience the frequency with which patients fail to comprehend what is said to them is almost equalled by their unwillingness to admit so unless stimulated by direct questions.

Finally, this method allows of that personal human contact and sympathy between the doctor or nurse and the patient which may be essential for successful treatment.

The disadvantage of this form of education is that it is time-consuming and even in hospital the disadvantage is very real.

Before discussing other methods of teaching it is well to consider briefly some of the difficulties encountered in training patients to manage their own illnesses.

It is probable that in nearly every sick person there is some element of subjective emotional reaction to the illness which is

reflected in their reception of health training, and this attitude of mind may result in the patient being a bad pupil. Although these reactions of the patient to his disease may spring from a deep-seated emotional disturbance which is difficult to correct, it is nevertheless prudent to exclude far more prosaic causes. The attitude of undue dependence upon outside help is common and naturally the result will be reluctance on the patient's part to accept training which carries with it the responsibility for self-help. This may well be caused by a superstitious and immature conception of the doctor as a godlike dispenser of magic—and in magic no self-help is needed. But in my experience it often arises from a suspicion that the State (via the doctor) may not be doing all that it should for the patient when he is instructed to do something for himself. The combination of this outlook with ignorance can produce astonishing results.

The patient is not necessarily to blame—the façade of omnipotence adopted by some doctors and nurses and the extravagant propaganda of a few politicians may each in its way have fostered these misconceptions.

The teaching of the sick presents other peculiar difficulties: Among the patients who need to be taught, some are old with rigid and unreceptive minds, deaf and, particularly in a diabetic clinic, with impaired eyesight. Often the only solution is to abandon the training of the patient himself and teach a younger relative instead. This, of course, applies equally with sick children.

Another obstacle which has to be overcome is the widespread lack of any formal education in the natural sciences amongst our pupils. For example, I very often find it difficult to explain to my diabetics the principle of food equivalents. They have no knowledge of digestion and metabolism and are frankly sceptical when I say that $\frac{2}{3}$ oz. of bread will give them as much sugar as 2 oz. of potatoes or 14 oz. of onions. Believing that it is important for them to have as varied a diet as possible I lay great stress on these equivalents and alternatives. I did so with such effect in the case of one old gentleman that he worked steadily through the choices in my menu in strict rotation until the morning when he found himself confronted with the unpalatable task of eating 14 oz. of onions or turnips as part of his breakfast.

Misunderstanding of our teaching can have much more tragic results than this and unfortunately it is often apparent that the more we try to explain the more confused and insecure the patient is likely to become. One way of overcoming this difficulty is not to explain anything but to present the patient with a series of dogmatic and rigid rules. Dogmatic statements at the outset do have the important advantage of providing the patient with security and, if made with the intention of later modification, have no particular disadvantage. Perhaps most authorities on

education would disapprove of this method. I do not like it very much myself, but am often forced to use it.

Practical Training

Whenever the lesson to be taught is essentially practical it is foolish to substitute purely verbal instruction in lieu. Subjects such as self-injection techniques, dressings, physical exercises and even diets are best done by practical demonstration, though in the last mentioned only examples can be given by practical means.

Written Instructions

Every large hospital probably uses pamphlets and booklets to some extent, particularly when special diets play a part in treatment. The advantages of this form of training are that it *may* save time and it provides a permanent record for revision at home. Nevertheless, I believe it essential to go over the written pamphlet with the patient when it is given to him, so the saving in time may not be so great as at first appears.

Now the presentation of written matter is obviously very important, and unfortunately most hospital efforts in this line are notable for their dull unattractiveness. The subject matter may be excellent, the choice of words is less often so, and the layout frequently is bad.

Since what is written may prove unpalatable to patients, e.g., an obesity diet, it is surely wise to make the publication look and seem attractive. It should be possible to combine the services of medical experts, teachers and the editors or art editors of good magazines to produce some really first-class publications.

Fears have been expressed that doctors and hospitals would be unwilling to submerge their personalities by using these, but the few that are produced are used and blank pages could be left to be filled in by the individual doctor according to the needs of the individual patient.

And although some of us may deprecate the modern tendency to present all sorts of subject matter in ways which discourage reading and encourage mental laziness, we may as well resign ourselves to living in the age of the strip cartoon and use its methods to our own ends.

Really clear and attractive pictorial representation will often prove a more valuable method of teaching than a written text, for pictures are normally understood even by the unintelligent patient. This method also compensates to some extent for one of the disadvantages of written instructions; for they are rarely designed to suit different age groups.

Group Discussions

My own experience in this field has been limited, but it appears that there are advantages to be gained from this form of teaching

which will repay the work involved in organising it. Patients are surely more likely to discuss their difficulties and perhaps offer criticisms when in a group. They can learn from the examples of fellow-sufferers and are far less likely to descend into an attitude of self-pity when meeting others who are reacting to their illness with fortitude. Training in certain disorders (e.g., diabetes) can obviously be done very efficiently by this method, particularly if the doctor, nurse or health visitor takes care that the proceedings are kept rather informal and does not treat the occasion purely as a lecture period. This fact has been realised for a long time in many hospital clinics which have their "diabetic clubs".

Dangers and Disadvantages

We have always been taught that the first criterion of any treatment is that it should do no harm. Education as a method of treatment is not unique in being free from harmful effects on the patient and, indeed, because of this many doctors are reluctant to use it themselves.

The most obvious danger is iatrogenic illness, i.e., illness induced by the physician. Such illness is not rare, particularly perhaps in cardiological practice. We often see young people whose hearts, while showing certain abnormalities on examination, are nevertheless functionally normal. Yet these patients may have the symptoms of heart disease and their whole lives may have been overshadowed by the fear of severe invalidism or even of sudden death, simply because they have been told that something is wrong with their hearts. In addition, in some instances, lengthy instruction and advice about their mode of living has added to their anxieties. It may be argued that this sort of thing is not an indictment of health education itself but of the wrong use of it. Unfortunately, however, even when the lesion has been such as to require explanation and advice, and this has been properly given, a consequence is the induction of superadded psychogenic symptoms.

Even though we do not produce iatrogenic illness, our training of the patient may impose far too rigid and severe restrictions on his life so that the treatment is worse than the symptoms of the disease. It is always easier to formulate rigid rules than to devise more flexible ones.

It is well to remember that when any patient gains knowledge about disease he is likely to pass it on to others.

The danger lies in the fact that the second-hand version is rarely accurate or complete; often indeed it is only the more lurid or sensational aspects of the teaching that are imparted to the unfortunate recipients. Harm and unnecessary suffering are caused by this.

We must not let our enthusiasm for educational methods blind us to their limitations. To give an example, I have never been satisfied that some of the lengthy advice we give to our peptic ulcer patients does very much good. This may be due to the difficulty which the patient has in following it, for it is easy to tell patients that they must avoid over-anxiety, too much ambition in their work and so forth, but quite a different matter for them to do so. It is possible, however, that our advice is based on medical beliefs which are wrong. When aetiology rests on shifting foundations, as it does in certain of the so-called psychosomatic diseases, it is not surprising if advice based on these current conceptions does not prove particularly helpful.

Prognosis is recognised to be a difficult task, but the patient or his relatives may naturally be more interested in this than in other aspects of an illness. Educational sessions will provide opportunities for questions about prognosis and there is some danger in certain cases if the health educator, particularly if medically unqualified and not fully aware of all details of the case, tries to answer such questions.

Conclusion

In conclusion, there are two points worthy of attention. First, the necessity of steering a middle course in health education in order to avoid the dangers of too much ignorance on the one hand and the equally undesirable state of creating too much introspection and preoccupation about health and disease on the other. Second, if more attention were paid to the subject of health education during the undergraduate training of doctors and nurses, then many of the problems connected with it would solve themselves.

BIOGRAPHICAL NOTES

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PHILOSOPHY OF HEALTH EDUCATION

BY R. M. MALAN, M.D., D.P.H.

ALTHOUGH the term "health education" belongs to the past quarter of a century, the basic idea is far from being a product of our times. Considered in its primary signification, that is, as the education of people in matters concerning hygiene, health education seems always to have been associated to some extent with public health.

It is to be assumed therefore that the origins of this important branch of medicine are implicit in the very beginnings of the human race.

As a matter of fact it is easy enough to trace in the story of ancient peoples evidence supporting this assumption. Plato and Aristotle, for instance, seem to have advocated the appointment of health officers for all cities. The history of the ancient Jews provides some of the best examples of understanding in public health and health education. In 1600 B.C. Moses passed and enforced laws relating to disease prevention. The origins of certain Jewish religious customs of to-day can be clearly traced to public health measures.

The ancient Romans must be mentioned for their wonderful and enduring sanitary work, such as aqueducts and sewers, which certainly exercised a most important influence on the health education of the people. Furthermore, the close association between public health and health education is shown by the disregard of both in the Dark Ages following on the fall of Rome.

In a previous publication,[9] I pointed out that we had to wait until the eighteenth and nineteenth centuries to meet a reawakening and a widening of the meaning of health education, although its principles were discernible in the history of the most progressive ancient people. This astonishing revival was the work of a group of pioneers of different creeds and professions who, in various countries, helped in a decisive way to bring into being health education founded on the new forms and needs of society and adapted to the social problems then arising.

Some of these outstanding people who deserve not only special mention but also our gratitude for their pioneer work in this field and in that of social medicine, were medical men or legislators,

while others were writers. They may be divided into three groups: (1) legislators or social workers, such as Beccaria, Howard, Pestalozzi, and Florence Nightingale ; (2) medical men such as Jenner, Snow, Budd, Simon, Di Vestea, Pagliani, Mantegazza, Frank, Chadwick, Pasteur, Lister, Pettenkoffer, and Koch ; and (3) writers such as Jean-Jacques Rousseau, Voltaire, Dickens, Victor Hugo and Harriet Beecher Stowe, who exercised a great influence on public opinion by denouncing some of the major social problems of their period.

It can be said that each of these groups of reformers applied the principles of health education in different fields and by so doing contributed to the present broad interpretation of the term. The medical men, for instance, discovered new methods of disease prevention, created preventive medicine, and applied and spread the knowledge of new public health measures. The legislators and social workers created, promoted, and enforced new social and public health laws. The writers, with their pen portraits of the social conditions of large classes of their societies, aroused public opinion and created a demand for legislation.

One of the most important causes of the development of health education in our times may be traced to the failure of the preventive measures which had been so successful against the common infectious diseases when applied to social medicine. It can indeed be said that health education received an enormous stimulus from this branch of medicine in which B. Ramazzini was the pioneer—a branch which reached its full development not only owing to the paramount importance of social diseases, but also because it became recognised that the co-operation of all was necessary if the goal were to be reached.

As a new weapon in the crusade against the effects of bad social conditions, health education work subsequently spread from the professional circles to the administrative and political classes, which were often in a better position to help solve social and public health problems.

Meanwhile, as we have tried to demonstrate, though the basic idea of health education had been known and applied through the ages, we might even say, since the birth of mankind, the term itself came into common use only at the beginning of the present century, in about 1920, and the diffusion of the idea was primarily due to the development of psychology and to the improvement in the cultural and social standards of the population.

Evolution of Technique

One feature of the new science was the foundation of a technique which, in the course of no more than 30 years, evolved into several different forms. The trends of the evolution itself in the U.S.A., where health education was first accepted, were so clearly

marked in the years following 1920 that public health experts were able to trace distinct stages in the development of the new science. According to Galdston,[6] for instance, who considers three such stages, in the first period health educators were primarily and almost exclusively concerned with the presentation of facts, such as exhibiting tuberculous lungs preserved in formalin, or showing photographs of insanitary tenements. Crude and startling facts were presented without reference to pedagogy in the belief that they would prove the most compelling of arguments and that the public would become interested, impressed, and convinced.

The next technique was the use of an appeal to emotions which were but tenuously related to the facts presented ; for instance, health suggestions were conveyed in documentary films and radio programmes with a background of suitable music, thus inducing a kind of Pavlovian motivation, as Galdston appropriately calls it.

The last technique of health education endeavours to achieve its aim by linking what is to be taught to the interests of the individual, as it is assumed that people are impelled in their actions by elementary drives (wants, needs, ambitions, curiosities, and so on) which must be known and made use of by the health educator.

However, submitting the growth of health education in modern times to a closer examination, we can detect various factors which are to a great extent responsible for the extraordinary development of the new science and which are products of recent years. Of these I would particularly mention the following:

The New Idea of Health

1. The revolution in the conception of health. The time when health meant simply absence of disease is over. Health to-day is considered as a more complicated condition which not only consists in the harmonious functioning of body and mind, but also depends largely on physical and social environment. " Health is a condition of complete physical, mental and social well-being and not merely the absence of disease or infirmity." This revolutionary conception, expressed in the Preamble to the Constitution of the World Health Organisation, points out to the sanitary authorities of the whole world new objectives to be reached in fields which not so long ago were considered not only to be outside the province of public health, but also to be totally independent of medical science.

To cope with the new duties, that is, with the promotion and maintenance of conditions of health in the fullest sense of the term, the sanitary authorities of to-day have to fight in a much wider arena than ever before, and to deal with many differing factors which directly or indirectly contribute to ill-health.

Among the most important of the elements which have recently been included in the new definition of health is mental health. The Cinderella of public health until a few years ago—mental problems having previously been considered the concern only of the psychiatrist who, furthermore, was interested mostly in pathological cases—mental health has of late achieved enormous importance both because it has proved essential to healthy living, and because scientific progress has been concentrated on new or neglected problems of the development of personality and human relationships.

2. The new and larger scope of public health due mostly to the revolutionary discoveries in therapeutics. Thanks to the sulphonamides and to the antibiotics there has been such a dramatic fall in the mortality rates for infectious disease that there are people who, trusting in the new pharmaceutical weapons, believe that the dream of the eradication of these diseases is about to come true.

The main offensive of public health has shifted to-day from infectious to social diseases, among which the most prominent are the degenerative diseases; the latter are on the increase, and their symptomatology is so indefinite that their detection and treatment depend entirely on the health education of the people.

3. The recognition of the principle—which has been followed for the infectious diseases as well as for the others—that public health and social problems should be solved by preventive measures.

The Welfare State

4. The modern conception that the State is responsible for the health of the people. The trend to-day is that it is always for the State to remove the obstacles to human progress, the famous five giants of Lord Beveridge: want, disease, ignorance, squalor, and idleness.

The centre of gravity of its functions having shifted from legislation to administration, the modern State is daily becoming more of a welfare State, and the conceptions underlying that change have already been included in certain constitutions. It is therefore obvious that among its duties the State has to provide for health education, which is essential for the promotion and the maintenance of public health. Again, the Preamble to the Constitution of WHO reaffirms the principle itself: "The extension to all peoples of the benefits of medical, psychological and related knowledge is essential to the fullest attainment of health"; and "Informed opinion and active co-operation on the part of the public are of the utmost importance in the improvement of the health of the people".

On the other hand, while the duty of health protection has

been assumed by the State, each individual is responsible for preserving his own health, which is an integral part of collective health. All this implies a reciprocity of rights and duties shared by the individual and the community, and their principles and functioning must be taught to all members of society.

I wish to mention here the declaration of the sanitary human rights and duties made by Delore[4] in 1937, as, so far as I know, not only does it represent the first document of this kind, but its principles were also partially adopted nine years later, on July 22, 1946, at the International Health Conference, New York, when the World Health Organisation came into being.

5. The improvement in standards of living due to scientific progress and economic factors has increased public awareness of the need for sanitary conditions.

6. The increasing complexity of social life, which is rendered more difficult by the clash of contrasting currents of thought and the consequences of the second World War, has revealed new and delicate problems which cannot be dealt with except through preventive measures, among which health education comes first.

7. The increase in the expectation of life and consequently in old-age groups, a fact which has raised new problems in the pathology of environment and of mental health.

The Individual's Part

In considering the usefulness of health education I should start by emphasising the need felt by public health authorities for the collaboration of the individual, as they obviously cannot attain their objectives, the importance of which may be gathered from the foregoing points, solely by the means of prevention and treatment now at their disposal.

However true it may be that health depends on heredity and environment, and in spite of all that public health authorities can do to improve both through eugenics and health measures, individual health is still determined to a large extent by what people themselves do. Therefore in order that the greatest benefit be derived from the admirable progress of medical science in all fields and that modern methods of public health administration should achieve the results we may logically expect, it is indispensable that every member of society should realise that he is concerned in the game, should make full use of the numerous services which have been organised for his own benefit, and should collaborate directly and indirectly through example and words in the fulfilment of the plans drafted by the public health authority. In brief, the individual, if the ultimate goal is to be reached, must shift from the role of the assisted to that of the active collaborator.

Two different forces can induce the individual to act in the desired way: the law and persuasion.

A Swiss saying maintains that "fear of the policeman is the beginning of wisdom".* Although public health legislation proves of no little value for health education, both because the fear of punishment acts as a deterrent and because of the indirect contribution it makes to the teaching of the individual, the main function of the law is the protection of society.

Persuasion, however, is quite a different thing. While the action of the law may be considered as a force operating from outside, persuasion is an impulse, or drive, from within, the most powerful determinant of human behaviour. Persuasion is the result of education; use of its powers for the progress of public health is made when one of the following conditions is realised:

(a) The individual is convinced that the way pointed out to him by the public health authority is entirely in harmony with his own interest;

(b) The individual, having reached a full social maturity, obeys the inner prompting of the sense of duty—as with Kant's categorical imperative—born from the understanding that what is expected from him is required for the well-being of the community.

In both cases the collaboration is voluntary. Medical men familiar with the problem are convinced that this is the best way to reach the goal because, when the main reliance is put upon legal measures, the response of people is not infrequently a mere passive compliance, if not a hostile reaction. In other words, for the ultimate solution of many health problems, for the development of healthful living in the current sense of the term, and for the development of efficient public health administration, it is of vital importance to inculcate in the masses a "health consciousness" similar to that which Di Vestea at the beginning of the century advocated and defined as that complement of social education which is the necessary condition for the effective working of the public health laws.

Health education is to-day one of the most important expressions of the policy of modern public health administration. Its value is no longer questionable. The biologist, C.-E. A. Winslow, has claimed that the discovery of health education as a factor of preventive medicine appears as important as did the microbe theory of diseases 30 years ago.

The Scope of Health Education

Some texts define the objectives of health education as follows:

(a) To teach people about the main laws of human biology, the origin of diseases, and the general conditions conducive to states of ill-health; (b) to teach people about the prevention of the

*"La crainte du gendarme est le commencement de la sagesse."

above-mentioned diseases and about action to be taken when normal functions are disturbed ; (c) to inform people of the existing public health services at their disposal and of the channels by which they may take advantage of them.

Health education is a branch of medicine in a state of such continuous evolution that we might say that its scope is broader to-day than as defined above. According to modern conceptions the goal is not so much to improve the working of the public health services and to facilitate the progress of hygiene in all its fields with the ultimate aim of stamping out disease and improving general health, as to create in the individual a right attitude of mind towards healthy living.

As Wood[15] points out, " health education represents the sum of all experiences in school and elsewhere that favourably influence habits, attitudes, and knowledge related to individual, racial, and community health ".

But health education, as I see it, goes even further, not confining itself to making the individual " health conscious " and to developing in him the sense of responsibility, but striving to give mankind a full understanding of the very essence of life.

Considered from this point of view, which may, I am afraid, appear far-fetched to many readers, health education extends beyond its generally assigned boundaries into the neighbouring fields of philosophy and religion in an effort to bring to the world a better morality, brotherhood and peace. We may then apply to health education the words of Pasteur : " Science knows no native land, or rather, the native land of science embraces all mankind ".*

The fields of action open to health education increase in number with the passing of time, partly as a result of the trend of social diseases and the prolongation of life, and it has developed its own technique as it has been adapted to its many varied activities. Obviously, the problem of venereal diseases, for instance, calls for more delicate and subtler methods of propaganda than does the prevention of infectious diseases. Different methods of approach are required for campaigns against tuberculosis or cancer.

Mental Health

The modern recognition of the close association between mental health and health education has brought about a great improvement in the latter. Mental health, as we have already pointed out, had in the past been left in the hands of psychiatrists who had been concerned with the abnormal case rather than with the healthy man.

It is the conviction to-day that mental health and health education are inseparably linked, and no health education pro-

*" La science n'a pas de patrie, ou plutôt la patrie de la science embrasse l'humanité tout entière."

gramme is possible which does not fully take account of the part played by the mind in every aspect of life. Furthermore, mental problems are known to be among the most serious which afflict society. A characteristic of health education is that it changes its pattern according to the social standards of life of the population concerned, and the change is largely due to the particular development of that part of health education which concerns mental health. For example, while health education in underdeveloped countries is mainly concerned with teaching basic notions of hygiene and disease prevention, in more civilised nations where mental problems sometimes show serious trends and are conducive to well-defined evils such as widespread divorce and alcoholism, the mental health aspect of health education assumes paramount importance. In such countries, health education should try to bring people back to an understanding of the value of nature and to a philosophy of life which often seems to have been forgotten by too refined a civilisation.

Health education is particularly important as it bridges the gap, generally too wide, which divides the public health authority from the individual, the "consumer" of the services as it were. Furthermore, it is obviously the best means of creating the demand which is so important for the promotion of legislation. It is, in fact, an indispensable requirement for the development of public health and preventive and social medicine, and for their acceptance by the public. As J. Duhamel has said, health education through the prevention of disease aims at avoiding the always expensive battle represented by therapeutic intervention.

Owing to its social importance and to its political implications, health education is generally the concern of the central public health authority, which in most countries is the only agency with the means and equipment to plan and carry out the necessary campaigns. Moreover, by appealing to the individual's sense of responsibility, health education is in perfect harmony with the principles of democracy.

Still, despite all the evidence in its favour, health education has to struggle for acceptance by the public against many obstacles. Among them is the objection raised by so many people—some of whom, we regret to admit, are medical men—that the best results in educating people in hygiene are obtained by improving economic conditions and that health education unaccompanied by a general rise in living standards is of very little value. They insist that the best way to create in people the right attitude towards healthy living is to provide them with the facilities available to-day in the more advanced nations.

Although we do not deny that the argument has a certain weight, we maintain that the vital importance of health education for the progress of hygiene and preventive and social medicine, as

well as for the future of public health administration, is made clear not only by the force of the arguments we have so far emphasised, but also by the results obtained in the campaigns already carried out.

We therefore strongly advocate a steadily increasing development of health education throughout the whole world, not only in order to improve physical and mental health, but also because health education, which implicitly aims at security and peace, compensates for the anxiety and mental depression which trouble mankind in these times of political conflict.

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SEVEN PILLARS

The Staff School maintained by Messrs. Frederick Smith & Co., Ltd., wire manufacturers, of Halifax, holds regular terms of instruction for its staff in all branches of relevant technical and administrative knowledge. The School has seven Articles of Foundation, which are as follows: (1) to receive the proven findings of directed research ; (2) to teach that which will be done to those who have it to do ; (3) to co-ordinate action and unify purpose ; (4) to achieve maximum effect with minimum direction ; (5) to maintain the qualifications for authority of those exercising it ; (6) to train future executives ; (7) to maintain effective relations with allied and other industry and with educational authorities and professional bodies.

(*Industrial Welfare*, November-December, 1952).

Refresher

INFERTILITY

BY PHILIP M. BLOOM, M.B., Ch.B., D.G.O.

In spite of all the work done on infertility in clinics, laboratories and consulting rooms, the incidence is still very high. Thirty years ago it was thought to be about 10 per cent. To-day it is commonly accepted as being somewhat less. This slight decrease plainly indicates that there is a great deal more yet to be known about the subject, particularly in the endocrine gland and genetic fields.

A healthy sperm must impregnate a healthy ovum for fertility purposes, and an investigation of the possible causes why this does not occur is prolonged.

Starting in the male, the genital organs must be present and healthy. Sperms must be sufficient in quantity and quality. There must be no obstruction in their passage from the testicles to the spermatic ducts, and the ducts must be free of obstruction. The sperms must receive a sufficiency of secretions from the seminal vesicles, prostate and urethral glands. Ejaculation must occur and coitus must allow the deposition of the semen as near the cervical os as possible.

In the female the ovaries must be present and healthy. The ovum must be mature and be able to break through the ovarian capsule and be drawn into the fallopian tube. Cervical secretions must be of such a nature as to allow the sperms both life and passage. The uterus and fallopian tubes must be equally healthy for the sperm to reach the ovum.

It is probable that a number of sperms must reach the ovum before one can pierce its outer covering. Recent investigations show that this outer covering must be capable of being digested by an enzyme possessed by the sperm.

If conception occurs, the fertilised ovum continues its passage through the fallopian tube and must meet no obstruction. The uterine endometrium should be healthy and in its full secretory phase to receive and allow of nidation of the ovum, and the growing ovum must necessarily remain *in situ*.

More and more we tend to appreciate that infertility is not

always due to one gross pathological condition in either the man or the woman, but often a combination of minor factors in both partners is responsible for the lack of conception. Each one of these minor factors in itself would probably be insufficient to delay pregnancy, and yet a cure, or elimination, of one or two of them, where the combination exists, may be sufficient to deal with the infertility.

Opinions vary as to when a couple should seek advice for their infertility. It is obvious that at the beginning of marriage, with emotional factors possibly affecting endocrine balance and ovulation, with too frequent coitus causing the production of a relatively large number of immature sperms in each ejaculate, or with infrequent coitus occurring during the woman's fertile period, pregnancy is often delayed for a few months. Taking all things into consideration, a couple who look upon themselves as normal and healthy, having successful sexual relationship, should consider seeking advice after twelve to eighteen months of attempts to have a child.

Although it is preferable that, from the beginning, both partners should be seen and investigated, it is generally the woman who seeks advice first. A complete history is taken with thorough general and gynaecological examination to exclude any one overriding factor that needs immediate further investigation or treatment. Though some husbands still retain an almost superstitiously vain reluctance to admit that they might share responsibility for infertility it is essential that the husband too is examined to be certain that he is not the source of the trouble.

When both have been seen and no one single responsible factor appears obvious then, with young couples, conservative treatment is adopted for a few months. It is sometimes found that this time factor alone cures the infertility. This seemingly superficial statement has its deeper implications. A woman's ovulation and menstrual cycle are easily disturbed by emotional factors. Pseudocyesis is a case in point. During the war women in internment camps often missed their periods for many months. At the other end of the scale many young girls experience disappointingly early menstrual flows simply due to the excitement of going to a special dance.

It is understandable, therefore, that emotional tension in women anxious to achieve a pregnancy may cause endocrine gland imbalance sufficient to interfere with ovulation. It is also feasible that this same tension may, through the autonomic nervous system, cause spasm in the fallopian tubes obstructing the passage of the ovum. Putting their troubles and worries in the hands of an expert may relax and relieve the emotional tension to such an extent that a pregnancy occurs.

Concurrent with worries about infertility, general marital prob-

lems of sex maladjustment may be causing tension too, and help along these lines may be needed and may produce good results.

Coital habits must be investigated because ignorance is often abysmal. People exist who consider interlabial coitus as sufficient. There are patients who do not know that ejaculation must occur, and in one case seen recently a woman was convinced that long intervals between intercourse were conducive to conception. Frequency of coitus must be investigated.

Occasionally coital posture is important. For example, it may happen that in a woman with retroverted uterus and cervix pointed forward in vagina, the semen is ejaculated into the posterior fornix, most of it escaping soon after withdrawal. If this woman has a pillow under her hips and, after coitus, continues lying for some minutes in such a position that the hips are tilted slightly upwards the semen will be retained in the vagina and give more sperms much greater chance to reach the cervical os.

Following this clinical investigation, advice is given about the fertile period. Patients are shown how to work out times of ovulation by means of menstrual cycles and basal body temperatures, and they are told to time their coitus accordingly. General advice on nutrition and diet, habits, focal sepsis etc. having been dealt with, husband and wife are often put on small doses of thyroid for three months. This acts as a mild stimulus to ovarian function and spermatogenesis. Finally the woman is usually given small doses of stilboestrol to be taken during the first few days of each cycle.

The patients report again after three or four months when, if no success has been achieved, further investigation is carried out. It is then necessary to have some knowledge of the semen content.

The semen may be examined directly, having been ejaculated into a sterile receptacle, or it may be examined during a post-coital test. The former is more common but it has its drawbacks as well as its advantages. The drawbacks include the psychological effect that such a procedure has on a man. Many men react severely to a suggestion that they may be responsible for infertility because they cannot dissociate their fertility and potency. When the semen of such a man is then found to be subfertile impotence of a psychological nature not infrequently follows.

A post-coital test while not telling us a great deal about the quantity of semen and sperms can give us much information about their behaviour in the cervical canal. If the post-coital test is done at ovulation time we can also learn more about the cervical secretions. The post-coital test may indicate that a direct semen examination is necessary.

If the examination of cervical secretions and the basal body temperature charts have not clearly defined that ovulation is

occurring the next step is an endometrial biopsy during what should be the secretory phase of a cycle. Anovular menstruation may then be ruled out.

Further investigation is directed towards estimating the patency of the fallopian tubes. Tubal insufflation, apart from the information it gives concerning any occlusion in the tubes, is occasionally therapeutic in that it appears to deal with minor obstructions. The site of any blocking can be determined by Lipiodol X-rays. Surgical intervention is sometimes indicated.

There are infertility clinics at most hospitals throughout the country. A large part of the preliminary work can be carried out by general practitioners. Some of the bigger Family Planning Association centres have subfertility clinics attached to them. One or two of the more important Marriage Guidance Council centres, which inevitably must contend with sexual problems, have medical consultants who *ipso facto* deal with infertility.

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Orders to: The Central Council for Health Education, Tavistock House, Tavistock Square, London, W.C.1.

International Report

CHANGING HEALTH CONCEPTS IN LATIN AMERICA

A REPORT by George M. Foster, Director of the Institute of Social Anthropology of the Smithsonian Institution, Washington, D.C. The cross-cultural anthropological analysis was compiled with the co-operation of the Health and Sanitation Division of the Institute of Inter-American Affairs and the Ministry of Health Servicios of Brazil, Colombia, Mexico and Peru. Collaborators in the report were Kalervo Oberg (Brazil), Ozzie Simmons (Peru), Charles Erasmus (Colombia), and Isabel Kelly (Mexico). The report has been summarised by Dr. Anne Burgess.

Technical knowledge has achieved a high degree of certainty and predictability. The knowledge of human behaviour which enables one to predict how people will react to a given set of circumstances, or to changes in their customary habits and patterns of living, is not nearly so complete.

It was felt that the social anthropologist with his specialised knowledge might help those carrying out the Technical Aid Programme by " analysing and explaining the behaviour of the people involved, and by pointing out to administrators the means by which customary action patterns may most easily be modified, and the points at which particularly strong resistances will be encountered ".

The study of the ideas and action patterns of the Technical Aid personnel was considered to be equally important ; " the factors which favour and inhibit the introduction and acceptance of new techniques and concepts are to be looked for in the conscious and unconscious beliefs of these people, as well as in the customary action patterns of the recipient peoples ".

The chief goal was, therefore, to determine what may be common factors which favour, and factors which inhibit, the introduction and acceptance of ideas and habits new to the ethnic groups involved.

It was hoped also that the analysis might reveal significant cross-cultural regularities which would facilitate the successful establishment of similar programmes in different cultures.

Analysis of the work of the Health Centres seemed to offer the greatest possibilities—comparable progress exists in all four countries, a wide range of people (particularly rural and low-income groups) is included, and ideas of health and illness are always deeply imbedded in the folk belief and folk value systems of such people.

The Centres studied, two in each country, served areas carrying a population varying between 100,000 and 3,500, though in the smaller areas the Centre also served a wider rural population.

The people belonged mostly to the low or very low income groups in urban, semi-rural or rural communities. Though the services varied slightly they were comparable—offering daily services such as pre- and post-natal hygiene, infant hygiene (including inoculations), dental clinic, venereal disease clinic, tuberculosis clinic (X-ray and fluoroscope), laboratory analysis and school-age hygiene. Some offered extra services such as privy construction, malaria control, milk distribution and public baths. The Centres were interested chiefly in public health, with stress on preventive medicine; but in some, in order to establish the Centre in an area, sick people were treated. There was considerable difference in this respect, some centres being much more willing than others to accept ill people.

The staff usually consisted of a head doctor and head nurse whose duties were administrative and advisory, each service being conducted by a doctor assisted by a nurse assigned on a rotating basis. The nurses spent half a day in the Centre and half home-visiting. There might also be a sanitary engineer, with up to five inspectors, as in the Lima Centre. Staff members were nationals of the country concerned in each Centre.

The general impression gained on visiting the Centres was of efficiency, speed, kindliness, sympathy and cleanliness. In one Centre the number of family folders had risen from 607 in 1946 to 2,455 in 1950, though this does not always mean a four-fold increase, some folders being retained after the family had ceased to attend. Contact of patient and doctor was brief and monosyllabic, and little education was done by most doctors, as they thought that the patients felt more at home with the nurses. There was little time for education by the nurses in the Centre, but more opportunity during home visits. The doctors were ignorant of the local beliefs about health and disease, and local medicines, and in general felt that the people were too "low-level" to understand or appreciate what was being done. The fact that the doctor belonged to the "upper classes" made the patient ill at ease and not expectant of help or sympathy. Ignor-

ance of local beliefs (especially about illness due to "magic") and impatience with such ideas lowered the faith in the doctor's skill, and resulted in the patients consulting the Centre for certain illnesses only—while for the illnesses due to "magic" they consulted the traditional "medicine-man". Where the doctor adopted a more "man to man" attitude, and where he showed and perhaps even used local medicine, his influence and popularity were greater.

In one pre-natal clinic the doctor adopted the attitude regarding internal examinations that "it is better to take them by surprise". Forty-three per cent of the pre-natal patients attending this clinic withdrew before delivery. In another, some preliminary explanation was given by the nurse before the woman's first pre-natal examination; only 21 per cent of these women withdrew before delivery.

During the home visits the nurse (or assistant nurse) was not so rushed, but it was felt that her time was not used to the best advantage. She often appeared more interested in demanding why the woman had not been to the Centre than in asking about her complaints and problems. She would give a set speech about diet and hygiene, instead of asking about the woman's diet. The nurse usually had the attitude of a "superior" visiting her families rather than an equal, and had an inflexible standard of what should be done rather than an adjustable approach to the needs of the particular family and situation. Nevertheless, doors which would not admit the nurse during the first years are now opened to her, and where concessions are made to local ideas the nurse is regarded as a friend and her advice accepted. The nurses generally did not understand the local beliefs about the origin of illness and therefore could not understand the requests they received for special kinds of medicine, e.g., "hot" medicines or "cold" medicines.

Though the standard of work at the Centres was high and though the number of attendances meant that everyone was working to full capacity, it was felt that the efficiency as measured in some types of results was not so certain as appeared at first sight.

For example, at one Centre 63 per cent of the venereal disease patients drop out before completing treatment. Another Centre appeared to have lost 84 per cent of its "Infants Service" cases during a year. Mention has already been made of another Centre where 43 per cent of the registered antenatal patients dropped out during the antenatal period—often after the first examination.

This failure to keep a higher percentage of enrolled patients was explained to a considerable extent by these almost universal criticisms levelled at the Centres by people who attended or would have liked to attend:

(1) Lack of tact and diplomacy on the part of the nurse or

doctor. This might range from the impersonal attitude in a rushed clinic to real or unconscious rudeness—the latter often due to an honest desire to do a good job and "get on with it". The innate assumptions of class differences between doctor and patient and the pre-conceived ideas about the intelligence of the people to be benefited also contributed to the patient's feeling of being slighted.

Much emphasis was laid during the home visits on recent failure to keep an appointment, and resulted sometimes in irritated townsmen coming to the Centre and asking for their names to be withdrawn so that they would not be bothered by the visiting nurses.

(2) Lack of time. This was the single most frequent complaint about Centre services. Appointments were made for the day and the patient had to wait until he or she was called. One man stated that he gained by staying at work and paying a private doctor instead of taking "time off" to go to the Centre. One Centre worked appointments by the hour, and criticisms on account of lost time were relatively fewer there.

(3) Failure to treat sick children. This was the most bitter of all criticisms, and shows the failure of the people to understand the preventive outlook and the distinction between preventive and curative medicine. The Centres varied greatly in the extent of their reactions in this respect. Some treated all comers, some refused all sick persons, others had varying standards, often at "the nurse's discretion", as to which conditions could be treated and which had to be turned away. Many reported that a sick child was seen if he had kept all his routine appointments and was turned away if he had not been a regular attender.

This third criticism involves matters basic to the fundamental idea of Health Centres and raises the question whether such countries are ready to receive the rather recently evolved and sophisticated idea of preventing disease rather than curing it. It also involves matters basic to the local beliefs about health and disease, and these will therefore be discussed now.

Common Beliefs About Health and Disease

No single central theory of disease was found to exist either in any one country or between the various countries under investigation, but certain common themes appear in each and all. "The most common single element in the total body of belief is that which has come down through two millennia from the humoral pathology of Hippocrates and Galen." According to that theory, "health" was maintained by the proper combination, in the proper proportions, of the four humors, blood, phlegm, black bile and yellow bile, each element being characterised by opposing qualities of heat and cold, moisture and dryness. "Selected

aspects of this theory, particularly the concept of heat and cold as qualities of the body, of types of illnesses and of food and herbs became part of the folk belief of most peoples. Hence, to-day there is a widespread tendency to explain much illness in terms of 'heat' and 'cold' which do not necessarily correspond to actual temperatures, but which are innate qualities of substances. Pneumonia, for example, is often classified as a 'cold' disease, while typhoid fever may be 'hot'. Correspondingly, foods are frequently classified as 'hot' or 'cold', as well as herbs and other remedies." "Hot" foods may be sugar, honey, green chile, pepper, brandy, black coffee, human milk, garlic, peanuts, onions, and salt. "Cold" foods may include rice, spaghetti, potatoes, most meats, beans, most leafy vegetables, most fruits, coffee with milk, and chocolate, but the lists have local variations and there is no universal agreement as to what is "hot", and what is "cold". "Nevertheless, in most places the idea exists, and has as a concomitant feeling that a 'hot' illness—i.e., one with a 'hot' cause—should be treated with 'cold' medicaments and foods. . . . This 'hot' and 'cold' distinction provides a general framework of do's and don'ts for popular medicine."

A second common belief is the idea that periodic cleansing of the stomach and intestinal tract is essential to health. The liver is regarded as a main source of ill health, and purification of the blood thought to be necessary for recovery or maintenance of health. Numerous herbal "stomach-cleansers" exist. The blood is considered important also and it is generally believed that extraction of the blood for venereal or other tests is weakening. On occasions, health authorities making routine checks on children have been run out by angry parents—because of this belief.

Folk concepts of disease seem to fall into three categories—empirical, or rational, magical, or supernatural, and psychological (where an emotional experience is considered the primary cause of an illness).

The *empirical* idea covers the diseases known locally as "natural" diseases, where a certain cause produces a certain result, or there appears to be a definite connection between cause and result—much in the same way as we blame exposure to cold for producing respiratory diseases. "Aire" or "mal aire" (air, or bad air) is often thought to be the cause of various types of illness. This may take the form of an actual current of air or draught, or emerging from a hot atmosphere into cold air. The violations of the "heat" and "cold" food prohibitions come into this category, as also the idea that gonorrhoea is caused by intercourse with a menstruating woman, or from sitting on a hot rock, and that malaria comes from eating certain fruits and not sleeping enough at night.

The cause may often be wrong according to our fuller knowledge, but not according to the more limited framework of local knowledge.

"Natural" illnesses include whooping-cough, colds, grippe, measles, smallpox, intestinal worms, teething diarrhoea, mange, venereal disease, typhoid fever, pneumonia, tuberculosis and rheumatism.

"*Magical*"—this classification applies to illnesses whose cause lies outside the body of empirical knowledge. The most important in Latin America is "ojo"—"evil-eye". "Certain individuals have the power, often unintentional and sometimes unknown to themselves, of causing illness in small children by looking at them, or admiring them verbally. Such a person may touch or even beat the child at the time of looking, thus preventing the *ojo* from taking effect. If this is not done, recourse is had to home cures or the medicine man." In some parts it is believed that a pregnant (or menstruating) woman who picks up a small child will cause it to fall ill. Some kinds of fright are also considered of magical origin, and bewitchment—making use of rag dolls or images representing the victim, into which pins are stuck, etc.—is also a magical form of illness.

"*Psychological*".—It is interesting to find the idea that strong emotional experiences can cause illness. Embarrassment or shame, a strong disillusion or great anger, produce these different and distinctive illnesses. So also jealousy or sibling rivalry among young children. "'Fright' also falls into this category, and is interpreted as illness and potential death from having had the soul knocked loose from the body. Others, such as a child's illness following a sudden physical blow, may be related to this concept." Epilepsy is thought to be due to strong resentment or anger.

The classification of the concepts of disease is important because the kinds of remedies used, and the willingness to submit to a trained doctor, depend to a large extent on the patient's or family's diagnosis (conscious or unconscious) of the nature of the illness.

Folk cures use a variety of techniques—herbal remedies, massage, rubbing with special substances, and poultices. Diet, with special reference to "hot" and "cold" foods, is very important. Certain days are often used for curing, e.g., Tuesday and Friday, and certain hours of the day. Frequently religious orations and creeds are recited.

It appears that herbal remedies are used most frequently for the "empirical" diseases and for these also a trained doctor is most often consulted. The others, it is felt, are not understood by a trained doctor, and the medicine man with his massage, egg rubbing and poultices is most frequently called in.

With regard to the magical and psychological, the underlying principle seems to be that the symptoms vary widely and that once the causative event has occurred, and the expectancy of a certain type of illness created, it is easy to fit what is seen into the expected pattern (much in the same way as a medical student "gets" the latest disease he has been studying). Such illnesses may also serve a useful purpose—e.g., after a fit of anger an individual may escape retribution and unpleasant consequences by becoming ill.

Other concepts of medicine and health which may influence the functioning of health projects are as follows:

(1) Health consists in feeling well, and since sickness is due to sins of omission or commission, or to fate, there is little a person can do to keep himself well. If a machine runs, obviously it is all right and needs no care; it only needs repair when it needs attention—i.e., when it has ceased to function properly. There is also, in some parts, a feeling that it is not manly to be ill, or afflicted by germs. This seems particularly true of tuberculosis, whose victims are loath to admit their diseased state.

(2) Bathing is probably regarded more often than not as unwise, particularly if the person is ill.

(3) Ventilation is dangerous at any time, particularly at night and in the room of a sick person.

(4) Contagion is recognised in certain diseases only, e.g., whooping cough, measles and smallpox, but not in venereal disease or tuberculosis.

(5) In some parts of Mexico isolation is a part of treatment for some illnesses—to protect the patient in his weakness from dangerous elements, e.g., the "strong blood" of a visitor.

(6) Vaccination and injections are characterised by ambivalence, though injections are popular in some areas. In other groups it is felt that sticking anything into the body is dangerous, especially if bleeding occurs, or if blood is to be removed.

The pre- and post-natal periods are governed by elaborate sets of beliefs and practices. Dietary restrictions seem to centre round the idea of keeping the foetus small so as to facilitate an easy delivery, e.g., drinking little water so as to prevent a big foetal head, and avoiding milk and butter. Birth often occurs in the squatting position. The placenta is buried, often under hearth stones—failure to do so endangers mother and child. In one area it must be buried along with hot ashes.

Sometimes the mother remains in bed from one to three weeks and then takes her first bath—an improvised "sweat bath". Diet is light for the first three days—all "cold" foods except for bread; after the fourth day "hot" foods predominate. In all Latin America home confinement lasts for forty days, and sexual relations are taboo during this time.

Discussion of Findings

"To the anthropologist it looks as if the single greatest problem is that of 'communication'. In this case it means—how is it possible to get across the idea to the recipient peoples that preventive medicine is a type of personal health insurance that will keep the individual in better health, make him live longer, and make him able to work more efficiently and enjoy life more fully? How can people who consider much of illness to be due to magical causes be made to understand scientific concepts of disease, of germs, and made to act accordingly? How can such people be persuaded to take health and disease prevention for folk beliefs, increased desire on the part of the people to go to the doctor for treatment, willingness to follow through his prescribed treatment, all combining to raise basic health standards? Fundamentally the problem is one of persuading people to drop old habits and ideas and substitute for them new ones which heretofore have formed no part of their conceptual world. The public health specialist is not working in a vacuum—rather he is working in an area in which the subjects already have definite and hard-to-shake beliefs, which they are just as sure are correct as he is sure they are mistaken. They are not at all sure that the doctor's ideas are better than those of the 'medicine man'—in many cases they are convinced that they are inferior. Many of modern medicine's practices are demonstrably sound . . . but equally demonstrably there are illnesses which the doctor does not understand, whose names he does not even know, and whose treatments he ridicules if called to his attention.

"'Communication', therefore, has two aspects—the driving out of the old and the bringing in of the new.

"The Survey has not revealed any single device whereby this could be achieved, but a number of ideas developed as to how greater progress could be achieved."

(1) It was felt that education and persuasion through the sick person, especially the children, would result in increased sympathy with the Centres and increased belief in the teaching of the Centres (as the people *see* that modern medicine works, and works better than the "cures" of the medicine man).

(2) A general knowledge of medical folk belief on the part of Centre personnel and an ability to make use of it critically at times and for certain ends would help in several ways (including fulfilling the basic premise that new ideas are more readily accepted by people if there is already something within their culture which is, or appears to be, similar to the foreign element). One private nurse who had some knowledge of folk medicine (she was the daughter of a medicine man) and had been trained in the Centre was very popular and successful in treating patients. She never argued about the cause of the disease, merely treated

it. She explained the method of treatment without explaining the theory. If objections arose, she explained she did things in that way "because the doctors do it this way", and it was presumed by the patients that, knowing both kinds of medicine, she used the doctors' method wisely and effectively.

(3) Respect for and use of such things as special numbers for "curing days", dietary restrictions, and ideas about appropriate foods, e.g., "hot" and "cold"; isolation; the use of "infusions" where such are used locally (i.e., the medicine to be taken with *hot* water), or poultices, etc., even if they do not do much good; the use of the "dirty stomach" idea to increase the acceptability of the prescribed medicine ("this will help clean out the stomach"), would increase the sense of familiarity and similarity between the old and the new, and so help a more easy acceptance of the new methods and ideas.

Particular respect should be given to any beliefs associated with pregnancy and birth, e.g., foods which can and cannot be eaten, during pregnancy or after delivery, and what has to be done about the placenta, as fear that such things will be ignored keeps the women from antenatal care and delivery in hospital.

Suggested basic knowledge necessary for the successful carrying out of health and sanitation projects:

(1) Folk medicine and native curing practices.

(2) Economics, particularly incomes and cost of living, especially if the people are asked to buy medicines. This is also important with regard to the ability to achieve a balanced diet. Housing also comes into this field.

(3) Social organisation of families. Who is the "head of the house"—father, mother, grandmother or mother-in-law? Are the marriage ties binding or loose—how much responsibility do parents take for their children?

(4) Education and literacy. Do the people use clocks?—three-hourly feeding is otherwise a nightmare of confusion. Oral instructions must be simple to avoid error. Propaganda must be made to measure.

(5) Political organisation—for administrators.

(6) Religion. Is death, for example, at any age considered a welcome relief from a world of suffering? Is the "divinity" responsible for ill health? Are there food taboos?

(7) Basic value systems. "What are the goals, aspirations, fundamental values and major cultural premises, consciously or unconsciously accepted, which give validity to the lives of the people in question? What is the practical significance of a fatalistic approach to life and death? What part does prestige play in determining behaviour patterns? Is male vanity and ego a factor to be considered? What are the ideas of bodily modesty? What are the types of stimuli and appeal to which people respond

most readily ?" (E.g., the American public responds to optimism in its advertising, whereas the Mexican is most receptive to the "doloroso"—the heart-rending, painful and sad.)

(8) The prestige complex (mentioned specially because of its tremendous importance in the countries studied). E.g. (a) The squat-type privy is usually the most popular because it is compatible with traditional defaecating postures. But in one area the people were near enough a town to realise that "the gentry" used a bowl-seat privy, and any attempt to persuade them to use the squat-type was interpreted as classifying them as "yokels". (b) The man who can read, in a generally illiterate populace, has great prestige, and medical advice read by him in the newspapers and recounted to his cronies was found to spread widely and be adopted readily. (c) The use of piped water was facilitated by the fact that the mayor, teachers, and priest, and business establishments in one area used it.

(9) Motor patterns. For example, in trade schools where traditionally rotary movements are not made in pottery making, the potter's wheel meets a nearly 100 per cent resistance, but is accepted where rotary movements are the custom.

Tools should approach as nearly as possible the design of the local variety and their method of use.

Box-privies were unpopular because they did not use the same motor pattern as the traditional "squatting" action.

(10) Information on credit facilities and money usage, labour division within the family, time utilisation, working and eating schedules, cooking and dietary practices, and the importance of alcoholism, should also be at hand.

(11) Less important but useful is knowledge of agriculture, fishing and primary occupations, industrial techniques (these may be vitally important in their effect on health in some countries), trade and commerce, religious fiestas and church observances, wedding ceremonies, burial customs, music and folk tales.

Suggestions for further work by the social scientist to help in the successful carrying out of health projects:

(1) Intensive examination and analysis of statistical records kept by operating agencies and interpretation in terms of the cultural context in which the project functions.

(2) Interviewing of large numbers of people affected by the programme to find out their criticisms, approvals, and opinions about how the programme might better serve them: e.g., how many follow the instructions given, and the relative importance of the various reasons why instructions are often *not* followed.

(3) Setting up field experiments to try alternate solutions to problems which arise: should a woman doctor be employed for antenatal work ? Should previous explanations be given regarding physical examination, or no explanation—which works best ?

the beauty of it is . . .

that the Milton Feeding Bottle Routine is so simple. Whether a mother is busy, overworked — or let's face it just careless, she can still — with Milton — keep baby's bottle free from germs with very little trouble.

"One of the greatest advances has been the use of Milton in the sterilisation of the feeding bottles and teats. In those hospitals which have adopted the Milton technique, Gastro Enteritis has entirely disappeared. No more broken and cracked bottles from steam sterilisation. What a simple, yet absolutely efficient method."

Extract from opening address at the Professional Nurses and Midwives Conference and Exhibition on Monday 17th October 1949

For full particulars write to the
Chief Bacteriologist, Milton Antiseptic Ltd
John Milton House, London N7

FILMS

A Two-Year-Old Goes To Hospital. (Made by James Robertson in co-operation with the Staff of the Central Middlesex Hospital, London. Available to specialised audiences only. Renting and selling arrangements not yet made. Enquiries to Mr. James Robertson, Tavistock Clinic, 2, Beaumont Street, London, W.1.

The Quiet One. (Made in U.S.A. Not yet available in Great Britain.)

Among films on psychology it is remarkable how well the documentary technique compares with the feature films. With the notable exception of *The Snake Pit* the feature films from the U.S.A., Canada, and this country, have appeared artificial case histories in which medical necessities have been allowed to swallow dramatic verity, leaving any but an audience of psychiatrists feeling that " such things could not happen to me." *A Two-Year-old Goes To Hospital* and *The Quiet One* are documentaries of outstanding quality and achieve a dramatic truth which no person of normal sensibility can ignore.

A Two-Year-Old Goes To Hospital, by James Robertson and his team, describes objectively eight days of a very normal child's experience in hospital. The technique is devised to eliminate the selection of particular moods and the choice of family and the hospital conditions are more than usually favourable to a happy outcome. As the days pass the child's changing reactions to nurses, parents, and other children are shown, and the fears, projections and feelings and frequent cries for " my Mummy " are recorded.

What does the film do ? Perhaps the most important thing is that cinematic technique, by isolating and concentrating our attention on the child, leaves us in no doubt as to the strength and character of a child's feelings when removed from its parents, its early outburst of rage gradually developing into a withdrawal. We cannot avoid or deny them, and as parents it makes us very uncomfortable. In this sense of opening our eyes to childish grief it is a contribution to the study of child-parent relationships as well as child nursing. It should be of great value in starting discussion on the question of emotional life of children among parents and doctors, and it should have an important place in the teaching of medical students and nurses.

The Quiet One, not yet available in this country, is a film of great beauty about a rejected and disturbed Negro child in New York who eventually finds a home and treatment at Wiltwick School. The various factors in rejection and the child's response to them, his mother's failure, the indifference of a town street, his grandmother's dutiful cruelty are shown by a camera-man and a director with an exquisite skill and gentleness. At no point does the story appear artificial. The gradual recovery of affection and the crises of feeling which accompany the reintegration of the childish personality are convincing and heartening evidence of the possible value of therapy.

This picture is suitable for showing to medical and lay audiences, and would be understood by children over 14. Though its completeness will tend to diminish discussion, what it lacks in provocativeness it amply makes up in dramatic tension.

These films both merit longer reviews.

John Burton.

Home Nursing—Bed Bath. (1940. 10 mins. 16 mm. silent black-and-white. Heaton: Dollond. Hire. Massachusetts Institute of Technology, U.S.A.)

Content : A patient is seen being bathed in bed. The bed is then made round the recumbent patient.

Treatment : A straightforward film record of a procedure that can be learned more easily from a practical demonstration and work in a hospital ward.

Technical : The method shown differs in several respects from that generally taught in schools of nursing —for instance, the water is not changed throughout the bathing, and dirty linen is thrown on to the floor. Lacking in detail, the film would be improved if such points as the routine attention to nails, hair, teeth, mouth and pressure areas were included.

Audience : First aid workers and student workers at the beginning of their training.

(Group appraisal by the Appraisals Panel of the Medical Committee, Scientific Film Association.)

BOOKS

SAVING CHILDREN FROM DELINQUENCY, by D. H. Stott. (University of London Press, Ltd. 1952. Pp. 266. Price 12s. 6d.)

Delinquency, after the training of children, is *the* subject on which Everyman is ready to hazard strong opinions. Most of the thinking is extremely muddled. Causes, treatment and preventives get indiscriminately interchanged. By reason of its title, therefore, Dr. Stott's book is likely to attract many readers. Any who seek speedy remedies or guaranteed deterrents will be disappointed. Some will accuse him of over-simplification, at times of hesitancy, at times of subjectivity, albeit insightful. The book merits careful reading. It is futile to consider delinquency without a willingness to go back to first principles. Dr. Stott does this without hesitation, and in the process reveals these to be the commonplaces of human relationships, sounding deceptively simple. It grows steadily clearer as the reader follows the argument, that effective preventive measures come up sharply against vested interests and administrative difficulty.

Dr. Stott's fundamental concept is that of breakdown—a bursting-out from an intolerable situation. This is a tendency in all of us, though each has a different threshold of breakdown. Around this the writer ranges widely, through rehabilitation of delinquent and family, deprived children, treatment in approved schools and diagnosis. The reader might be forgiven for asserting that the title should have been just " Delinquency " rather than one suggesting that " prevention " is the topic. To this it can be replied that so few are yet able to take an all-round view of this vexing problem, much less adopt far-reaching preventive measures, that it is well-nigh impossible to keep strictly to the implications of the title if the subject is to be dealt with honestly.

The paradox remains that, though many a reader will complain that the book gives no clear-cut guide, the surest way to establish a good preventive outlook *and* improve treatment would be for all who are in any way concerned to read it carefully and accept and apply its principles. The honest thinker in any walk of life where human relations are paramount, will have much to gain from it. The inexperienced in the intricacies of social case-work may find it difficult to appreciate fully at times, the prejudiced will be irritated, the honest and experienced stimulated.

JOHN WHEELER.

MAN AND EPIDEMICS, by C.-E. A. Winslow. (Princeton University Press (London, Geoffrey Cumberledge). 1952. Pp. 246. Price 25s.)

Little epidemics read like detective stories : great epidemics read like wars. Whether the reader prefers the role of the detective or the soldier, here is something which excites him and sometimes horrifies him. Epidemics are fought by a combination of skill, courage, and perseverance and organising ability. The field worker draws on the vast stock of scientific knowledge which is the inheritance of the public health service. Such ingenuity, human courage and triumph appeal to the average reader, but always he is left with the impression that these qualities are all that is required. Nowadays we go deeper and inquire why the epidemics occur at all. It is our duty to shake the lay reader's complacency in the false belief that applied science alone can put finish to the story of disease.

Perhaps in this country we have been so primed with the " Chadwick Story " that we tend to think first of political and social issues while taking our scientific knowledge for granted. Dr. Winslow's scholarly book may be new reading in his own country. His title does not convey all that is within the pages. Certainly his review of the past and present experience in water supplies, milk, nutrition and sanitation is familiar. The reader is introduced to the whole background of bacteriology, chemistry and engineering which is the equipment of the technical specialist. As early as page 29, however, Dr. Winslow betrays certain uneasiness when he says : " Even in our prosperous country benefits of public health science have not been realised by the less benefited economic groups." He concludes that it is

important as a part of the health service to promote an adequate income for the population. The National Health Survey (U.S.A.) of 1936–38 revealed a positive correlation between poverty and sickness. Taken in conjunction with this it is strange reading to English eyes to learn on page 149 that the quality of the medical examination of a food handler is dependent on the size of the fee offered.

On the purely epidemiological side there is much of interest. The experience of American great towns in the nineteenth century was very similar to our own, but we gain the impression that sanitary reform was longer delayed. Another complication with which we did not have to contend in this country is the existence of tropical diseases, in particular yellow fever. It is remarkable to learn that an outbreak of plague occurred in America in 1900, and it is significant that attempts were made to hush up the event. American dairy herds are by no means so free from tuberculosis as some enthusiasts here would like us to believe. On page 126 we find : " The first certified herd in this country proved some 10 years afterwards to be riddled with tuberculosis." The author concludes that : " The complete exclusion of diseased animals from dairy herds is an ideal which simply cannot be realised to perfection." This would not be accepted in this country, and indeed British farmers have for a long time maintained T.T. herds which they guard jealously and successfully.

An interesting chapter, " Scourges of the Past," explains the epidemiology of typhus very clearly. Again the author seizes the opportunity to emphasise the social cause of the disease. His personal experience in Poland in 1921 made him realise that typhus was a social and economic disease. For the future, the author considers sanitation as part of a larger programme, and claims that permanent development involves the mitigation of poverty as well as all specific diseases. He also believes that the keynote of a health programme is education to achieve a change in the conduct of an individual life.

This is an important book written in a style which will be attractive to the English reader, and revealing that deep philosophy and scholarship which are the mark of a great leader in social medicine. Of the many aphorisms which doubtless we shall be hearing secondhand once this book has had a wide circulation, one which particularly commends itself is : " The real—though unrecognised—triumph of public health are the things which do not happen."

A. J. Dalzell-Ward.

Last Enemy ? The Story of the Virus, by J. Gordon Cook. (Spotlight on Science Books, Merrow Publishing Co., Ltd. 1952. Pp. 64. Price 2s.)

The dustcover tells us that the Spotlight on Science Books " have been written for the man in the street—and his family." To get scientific advances over to such a wide public a writer needs many qualities. He should, for example, use a lively, simple and clear style, pay great attention to the important principles of his subject and to the order in which they are stated, condense and omit results in order to present an understandable story, and, above all, connect his facts and discoveries with people. This last is probably the most important, because we seem naturally more interested in what people say and do than in most other matters.

For most of the required qualities, Dr. Gordon Cook scores high marks. His style is easy and readable, though the purist might find his writing at times too full of clichés—e.g., " ' Animal and vegetable ' lie on one side of the barrier of life ; ' mineral ' occupies the other. And never the twain shall meet. . . . So we think, until we *really* start to think."

Dr. Cook's powers of condensation are great ; and we find an enormous quantity of interesting information about viruses contained in the 57 pages of text. Furthermore, the facts in these pages are presented in relation to the research workers who discovered them, to the doctors who use them and the man in the street who may become infected by viruses or protected from their infection. The result is a most interesting and readable short account of viruses, that suffers only from signs of hastiness in the arrangement of material and in the use of units of measurement.

H. O. J. Collier.

HELP YOURSELF GET WELL, a Guide for T.B. Patients and their Families, by Marjorie McDonald Pyle. (Wm. Heinemann, Medical Books, Ltd. 1952. Pp. 143. Price 12s. 6d.)

This little book is worthy of a place in the staff and patients' libraries of every chest clinic and sanatorium. Written by an American chest physician who has herself recovered from tuberculosis, it has the sense and sensibility of a hard-won experience, passed on with a sincerity that will appeal alike to the patient, his family and his social worker. It has a sympathetic understanding of the emotional difficulties that can develop in the months and years between diagnosis and the return to community life, but it is not sentimental. Its message is hope, but the hope of active and practical acceptance as the only road to the conquest of disability.

In those parts where practical aids differ as between the United States and this country it has been excellently revised by Miss Overend, Chief Social Worker of the National Association for the Prevention of Tuberculosis, and so outlines every aid available from Public Assistance to vocational training. Its main object, therefore, is to help the patient to help himself to adjust to every changing phase of his new life from rest to work. It does the job well.

RICHARD R. TRAIL.

ALCOHOLISM SUB-COMMITTEE, SECOND REPORT. (World Health Organisation, Technical Report Series No. 48, Expert Committee on World Health. Geneva. Pp. 39. Price 2s.)

This practical report is recommended to physicians, psychiatrists and sociologists. The outline of a recommended survey on drinking patterns would be of great interest to the latter, as this is a research project which sociologists are best fitted to carry out.

The treatment of alcoholism occupies most of the text, because the authors believe that prevention can only follow a determined attack on a problem of such large proportions. They also believe that all countries underestimate the extent of alcoholism in their official statistics. The numbers requiring treatment, therefore, are very large, but the majority of alcoholics can be treated at out-patient clinics of general hospitals. They are employable, and segregation in hospital wards is unwise save in very bad cases of deterioration. Out-patient facilities should therefore be provided, and such an arrangement would be of benefit both to patients and to medical staffs who have little opportunity of studying this condition. It is considered that once the public understand the "disease nature" of alcoholism they will then co-operate in methods of prevention.

The practical advice on the use of disulfiram, better known by its proprietary name of "Antabuse," gives more than the average textbook on medicine. The studies of phases in alcohol addiction are also interesting and valuable, but the chart on page 30 is difficult to read on account of the numerous references to the text which are required. Full tribute is paid to group activities such as Alcoholics Anonymous, and it is emphasised that social measures are essential adjuvants to medical treatment.

A. J. DALZELL-WARD.

PHYSICAL EDUCATION IN ENGLAND SINCE 1800, by Peter C. McIntosh. (G. Bell & Sons, Ltd. 1952. Pp. 259. Students' edition 12s., general edition 15s.)

Mr. McIntosh has accomplished a great task in compiling such a readable and interesting history of physical education. The book is the result of careful research, and the references and bibliography are extremely wide and thorough.

Much of what is contained in this work is well known to many physical educationists, but never before has the information been collected together in such concise form. The author has set out his material in a clear and most logical way, without giving opinions or drawing conclusions, but relates faithfully the facts which have influenced the development of physical education during the last two centuries.

Inevitably the book throws light not only on the development of physical education but on the educational and social changes, one being related to the other in a most interesting way.

This book is much needed, and will be invaluable to all lecturers, teachers and students of physical education.

M. C. TAYLER.

C.C.H.E. Sound Film Strips

Sound film strips help to start lively discussion of problems that vitally affect the health and harmony of every family. The Central Council for Health Education has prepared four entitled:

Does Baby Know Best?
(Merits of clock feeding *versus* on demand feeding)

A Mother's Place
(Should mothers of young children go out to work ?)

Divided Loyalties
(Conflict of a 9-year-old boy's loyalties to his parents and his gang)

Mother, Can I Go Out Tonight?
(Problem of family relations between a mother, father, and a 15-year-old girl)

These are designed to be used by health visitors, teachers and other health educationists with groups of parents and children, and suggestions for outlines of discussion are provided. The interest which such discussion arouses promotes active thinking on the part of every member of the audience and should be a major contribution to helping families resolve their difficulties over subjects where opinions differ.

Each film strip and record is available, price 35s. per set to subscribers, 50s. per set to others, from

The Central Council for Health Education,
Tavistock House, Tavistock Square,
London, W.C.1.

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